2014 Educator Preparation Institution (EPI) Performance Score

Technical
Manual

A Guide To Component and Overall Score Calculation

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BACKGROUND AND OVERVIEW ON THE REVISED EDUCATOR PREPARATION INSTITUTION (EPI) PERFORMANCE SCORE

Title II, Section 208(a) of the Higher Education Act (HEA) requires that each state establish criteria and identify and assist teacher preparation institutions that are not performing at a satisfactory level. States must also report annually to the United States Department of Education (USED) a statement of their procedures, along with a list of low-performing and at-risk teacher preparation institutions.

On October 9, 2007, the State Board of Education (SBE) approved, with amendments, a set of procedures that reflect the overall effectiveness of preparation programs using multiple factors. Criteria within the procedures include the Michigan Test for Teacher Certification (MTTC) test scores, new teacher efficacy surveys, supervisor validation of new teachers' efficacy, program completion rates, and an additional consideration regarding the program's mission to be responsive to the state's teacher preparation needs.[1]

In the spring of 2012, the Michigan Department of Education (MDE) created a cross-departmental committee to focus on educator effectiveness in order to improve the systems impacting educator preparation and to ensure the state's programs continue to advance in quality. A sub-committee was formed to focus specifically on the development of a revised Educator Preparation Institution (EPI) Performance Score. The sub-committee utilized the MDE and the SBE's priorities to focus the work. The team examined the entire score, as well as the metrics used for assessing the EPIs.

The sub-committee developed three primary goals to provide greater focus for EPIs and align the score more closely to MDE priorities. In the "Overall Score Calculation" section of this document, these goals are listed, which include seven measureable sub-elements

or factors that are tightly aligned to the newly approved Michigan Interstate Teacher Assessment and Support Consortium (MI-InTASC) standards.[2] The three goals, with their components, are as follows:

Goal #1: Ensure that the EPI has prepared candidates to be effective classroom teachers through exposure to content and pedagogy.

    A. Exposure to and Demonstration of Content Knowledge and Content-Specific Pedagogy
        1. Subject-Area Content
        2. High-Quality Learning Experiences
        3. Critical Thinking
        4. Connection to Real World Problems and Local and Global Issues

    B. Exposure to and Demonstration of General Pedagogical Knowledge and Skills
        1. Technology
        2. Special Populations
        3. Learning Environments
        4. Effective Use of Data

Goal #2: Ensure that the EPI has the capacity to prepare teachers effectively and demonstrate continuous improvement related to Michigan Department Education (MDE)-specific priorities.

    1. Candidate Diversity (recruit, support, and retain underrepresented students)
    2. Commitment to Clinical Preparation
    3. State Evaluation System (flexible options in evaluation design)
    4. Placement Rates in "shortage" areas (including support and advising of candidates in relation to "shortage" areas)

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1   Source: MDE Annual Educator Performance Institution Score Report, July 22, 2013.
2   Source: Memorandum from Superintendent Flanagan, Presentation of the Revised 2014 Educator Preparation Institution Performance Score, July 22, 2013.

background & overview

Goal #3: Ensure that program graduates meet standards for teacher effectiveness.

1. Demonstrate General Effectiveness
2. Placement Rates

When these goals and their components were clarified, the instrumentation used to gather data along the various goal components was also clarified. The table that appears in the "Overall Score Calculation" section of this document has been updated to show, in more detail, which goal component matches which instrumentation sources. The three instruments used for the 2014 EPI Performance Score are the following:

1. Percentages of teacher candidates who pass the content-based tests under The Michigan Tests for Teacher Certification (MTTC) system over the last three years;
2. Satisfaction and perception data from surveys administered to teacher candidates and candidate supervisors, twice annually; and
3. Point scores attributed to the latest three years' worth of teacher effectiveness ratings within the last five calendar years for graduates from each EPI employed in Michigan public schools.

In each of these instruments, an "index score" was earned on a scale out of 100 possible points. The 100-point scale was used to simplify understanding the component scores, and to aid in a conversion to a weighted calculation across goal components. The "Overall Score Calculation" section of this document explains this in more detail.

Each year, the MDE reports the institutions identified as At Risk or Low Performing to the USED per the HEA requirements. Beginning with the 2014 score, the MDE has implemented a progressive corrective action system. In general, institutions identified as Low Performing have two years to improve their performance before state sanctions occur. Institutions identified as At Risk must progress to the Satisfactory category within two years or move to the Low Performing category, even if their calculated performance score would result in At Risk level. Institutions have two years from that date to remove At Risk or Low Performing status before moving to a new level of corrective action.[3] (Since this system is being newly introduced this year, some "grandfathering" of levels occurred.)

As a note, in future years, the MDE anticipates the possible contribution of other sources of data, such as surveys that ask new teachers for their perspectives on their preparing EPIs after a year of experience, surveys for cooperating teachers (or "mentor teachers") of teacher candidates, and measures for EPI response to teacher shortage areas. These additional data sources would be intended to enhance the calculation of annual EPI performance score, after they have been validated and piloted before inclusion in an operational score.

component score calculation

MICHIGAN TEST FOR TEACHER CERTIFICATION (MTTC) PASSING PERCENTAGES

State law in Michigan [4] mandates a testing program as part of Michigan's teacher certification requirements. In June 1991, the MDE awarded National Evaluation Systems (now known as the Evaluation Systems Group of Pearson, or ES) a contract to develop and administer the testing program. The purpose of the tests is to ensure that each certified teacher has the level of content knowledge needed to perform effectively the job of a qualified Michigan educator. The tests are not the only basis on which prospective teachers are evaluated in Michigan, nor are the knowledge and skills covered by the tests the only types of knowledge and skills, or the only professional and personal qualifications, those teachers must have. The tests represent one prerequisite for obtaining a teaching certificate in Michigan.

The MTTC program includes both a Professional Readiness Examination (PRE) and content/subject-area assessments. The PRE has three subtests: reading, mathematics, and writing. By Michigan law, candidates must pass the PRE before a teacher candidate may enrolled in student teaching. Some of Michigan's EPIs require passing of the PRE prior to admitting candidates to the EPI's teacher preparation program. Once a teacher candidate has completed an EPI's program (or nears completion) the candidate takes the MTTC content/subject area test that corresponds to their area(s) of preparation (major, minor, and/or endorsement program). By Michigan law, content/subject-area tests must be passed before the candidate's certificate is endorsed with the corresponding subject and grade level. Because the PRE is a gateway measure into student teaching and/or program admission, the results of the PRE are not appropriate to include in the EPI performance score. Only those scores obtained at or near the end of a candidate's experience are included.

MTTC content/subject-area passing percentages contribute to the overall EPI Performance Scores because the efficacy of the preparatory program can be evidenced, in part, by how students perform on their content/subject-area assessments at the conclusion (or near-conclusion) of their programs. As the MTTC content/subject-area assessments are aligned to specific Michigan State Board of Education-approved teaching standards related to content and subject area, they provide a measure of how well the teacher was prepared by the EPI overall, not just in the education department or college before taking the test.

For that reason, the EPI Performance Score uses a three-year aggregate, or combined passing percentage, of all MTTC content/subject-area tests administered to eligible candidates from each EPI. Eligible candidates are those candidates verified by EPIs as candidates from the EPI. MTTC passing percentages used in the EPI Performance Score represent the "cumulative" or "best attempt" of all eligible test-takers for content/subject areas, which are administered in paper-based format four times per year; candidates can retake a content/subject-area MTTC an unlimited number of times if they have an initial failing result. To calculate the aggregate passing percentage, the number of "best attempt" passing results during a three-year period is divided by the total number of registrations over the same period, by test. Multiple attempts made by a teacher candidate on a given MTTC test during the three-year period are counted as one registration. For the calculation of the 2014 EPI Performance Scores, passing percentages from the August 2010 through the July 2013 administrations of content/subject-area tests were used.

For content/subject area tests that had less than 10 test-takers at a given EPI, the MDE aggregated all such programs into their own category, "Small Programs." This category was treated as its own content/subject area test for the purposes of performing the three-year aggregate passing percentage calculations.

Programs that had been closed at an EPI during the three-year period from August 2010 to July 2013 were not included into the component score calculations for these EPIs.

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4   Section 1531 of Public Act 451 (1976), as amended by Public Act 267 (1986), Public Act 282 (1992), and Public Act 289 (1995).

component score calculation

TEACHER CANDIDATE AND CANDIDATE SUPERVISOR SURVEYS

As another component of the EPI Performance Score, perception data are gathered in two windows during the academic year from teacher candidates (TCs) and candidate supervisors (CSs). Response data from these two sets of surveys aids in the measurement of the efficacy of teacher preparation programs, with questions aligned to policy goals and the Professional Standards for Michigan Teachers (PSMTs).

Two survey windows are programmed per academic year to allow for flexibility in gathering data from teachers graduating from programs in different semesters. For the 2014 EPI Performance Score, survey responses were collected from the Fall/Winter time span, in a window running from late 2012 to the end of January of 2013; and the Spring/Summer time span, in a window running from April of 2013 to the end of July 2013.

The audience for the TC surveys is teacher candidates who are finishing up their directed student teaching for their preparation program and are within the last two weeks of that period. The CS surveys are for EPI faculty who directly supervise the placement and directed student teaching of teacher candidates and have regular contact with them throughout that period. The two survey sets include similar questions for each audience, with wording changes to reflect the nature of each audience: teacher candidates report direct perceptions of their actual preparation, while candidate supervisors report indirect evidence of preparation through observations of candidate behaviors.

While questions on the 2012-2013 surveys where aligned with the Professional Standards for Michigan Teachers (PSMTs), the Michigan Department of Education (MDE) has since adopted new policy goals, and the Michigan Interstate Teacher Assessment and Support Consortium (MI-InTASC) standards were also adopted. Accordingly, a crosswalk exercise between the PSMT and the MI-InTASC standards was conducted to identify the information from the existing

survey available for inclusion in the 2014 EPI score calculations. Surveys are being revised to be based fully on MI-InTASC, and will be used for subsequent EPI score calculations. The analyses of the crosswalk concluded that the following information, as gathered by section on the 2013-2013 surveys, was available for inclusion for the 2014 EPI Score calculations:

- Demographic information, including identification number
- Age and race information
- Major areas of specialization
- Perception questions with 4-point Likert scales across six categories
1) Have teacher candidates been prepared to design high-quality learning experiences?
2) Have teacher candidates been prepared to deliver instruction relevant to real-world problems, and local and global issues?
3) Have teacher candidates been prepared in the use of educational technology to maximize student learning?
4) Have teacher candidates been prepared to address the needs of special populations?
5) Have teacher candidates been prepared to organize learning environments?
6) Have teacher candidates been prepared on the effective use of assessments and student data?

Among the category areas listed immediately above, four were common across the 2012-2013 TC and CS surveys (categories 3 through 6, above), allowing aggregation of these results between the two survey types, and a resultant contribution of their scores to the 2014 EPI Performance Score. In the case of the other two response categories, these responses also were deemed usable for contribution to the 2014 EPI Performance Score, but their only source is the TC surveys, as the CS surveys did not include questions on these topic areas. (For the survey designs that will

contribute to the 2015 EPI score, these categories now exactly correspond between TC and CS surveys. A seventh category, "Have teacher candidates been prepared in applying critical thinking in their content area(s)?" has been added.)

Each category area described above has a different number of items that contribute to a total for that category area. Numerical responses to these items are aggregated, or combined, to generate an overall total of all responses across all categories by Likert number. Base response percentage rates are also calculated to validate that a threshold response has been reached. "Efficacy" is defined as the overall percentage of "3" and "4" responses on the Likert scale across all categories, across both sets of surveys, per survey type (TC or CS). An Efficacy rating is thus generated as an average from the overall rates on the TC and CS survey.

The 2012-2013 TC and CS Surveys are included with this document as Appendix A, page 20. A cross-reference table has also been included to show which survey items contributed to which category for the purposes of component score calculation and contribution to the overall calculation across the three EPI Performance Score goals.

EFFECTIVENESS LABELS SCORING METHODOLOGY

Once each year, teacher effectiveness labels are captured by the Registry of Educational Personnel (REP), a statewide database that collects fields of data about teachers and other staff who are employed in Michigan's public K–12 schools. The data collected include information about teacher assignment, certification validity and expiration, work site, and full-time status, among other details. Michigan's legislation mandates the annual evaluation of teachers and the assignment of teacher effectiveness labels, indicating whether teachers are considered "Highly Effective," "Effective," "Minimally Effective," and "Ineffective"

according to several factors, including student academic growth on statewide assessments.

The teacher effectiveness ratings became one source of data that contribute to the annual EPI Performance Score because the preparation that teachers receive at their college or university program directly impacts their effectiveness to deliver content within a strong pedagogical framework. It is also included as EPIs need to prepare their candidates for successful annual evaluations, and a measure of those candidates success in early annual evaluations can be reasonably considered to be a reflection of the preparation afforded by the EPI program. As research confirms,[5] student growth in their academic performance is tied to teacher effectiveness. Accordingly, it was decided that the teacher effectiveness labels would be collected and a point attribution methodology would be applied to the ratings of teachers who received their initial certification from Michigan's EPIs, and that those point attributions would form one of the component scores for their annual performance score.

To compute this component score on teacher effectiveness for the annual EPI Performance Score, the MDE began with data on the effectiveness ratings on teachers in their first three years of experience. These data came from the most recent version of the June 2013 Michigan Online Educator Certification System (MOECS) database, correlated to appearances in the Registry of Educational Personnel (REP) database over a five-year period. MOECS uses certification data from each EPI, as well as roster data sent to MDE from personnel data administrators at school districts. The REP contains data on full-time equivalency (FTE) and effectiveness ratings. Teachers are assigned years of experience based on their career FTE. With these two data sources, reliable patterns of teacher effectiveness could be attributed to the EPI that originally recommended certification. Information on this process can be found in Table 1.

5   Kemp, L., & Hall, A. H. (1992). *Impact of effective teaching research on student achievement and teacher performance: Equity and access implications for quality education.* Jackson, MS: Jackson State University. (ERIC Document Reproduction Service No. ED 348 360)

component score calculation

Each EPI was assigned a grid with rows representing each of the different effectiveness ratings ("Highly Effective," "Effective," "Minimally Effective," and "Ineffective") and the columns representing teachers in their first, second, or third year of experience. All teachers in their first three years of experience were assigned to a particular cell in this grid. Some EPIs did not have teachers with certain effectiveness ratings; these EPIs had the corresponding row(s) left blank. Some EPIs did not have teachers in their second or third year of experience; these EPIs had the corresponding column(s) left blank.

MDE then computed the percent of teachers in each effectiveness category within a particular EPI and within a particular year of experience. For example, consider an EPI with 10 teachers in their first year of experience, three of whom were Highly Effective, five Effective, one Minimally Effective, and one Ineffective. Regardless of the number of teachers from this EPI in their second or third year of experience, its first-year percentages would be 30 percent Highly Effective, 50 percent Effective, 10 percent Minimally Effective, and 10 percent Ineffective. This process was done separately for all EPIs and for each year of experience.

Next, the MDE assigned a point value to each effectiveness rating. Highly Effective teacher ratings were assigned 1.00 points, Effective teacher ratings were assigned 0.80 points, Minimally Effective teacher ratings were assigned 0.30 points, and Ineffective teacher ratings were assigned zero points. This point scale is shown in Table 2. There are several reasons for this particular point scale. First, moving from Minimally Effective to Effective is valued more highly than moving from Ineffective to Minimally Effective. Moving teachers towards effectiveness should be rewarded, no matter whether teachers are near or far from effectiveness. However, it is important to incentivize the training of Effective teachers; while Minimally Effective teachers are preferable to Ineffective teachers, Effective teachers are greatly preferred to either.

Second, there is an even smaller difference between Effective and Highly Effective teachers. While Highly

Effective teachers may have a large impact on their students, MDE's priority is first and foremost to guarantee an effective education for all students in Michigan. This point system balances rewarding the Highly Effective rating with the need to incentivize overall effectiveness.

Finally, it should be noted that the Effective rating was not assigned a full 1.00 score because teachers, even when considered effective, can and should strive to improve their teaching practices through professional development, collaboration with other teachers (e.g., professional learning communities), reflection and refinement of their practice, extending their skills through continuing education, and a host of other options. As a result, 0.80 was selected as a fair threshold to show that while an Effective rating is certainly a positive one, there is no immediate "ceiling" that would otherwise defeat an argument toward continuous improvement. The percent of teachers in each effectiveness category is therefore multiplied by the corresponding point value.

The point values within each column are then added together to give a score for each year. In the example above, our hypothetical EPI would have a score of 73 for this year. They are awarded 30 points from having 30 percent Highly Effective teachers in their first year of experience, 40 points from having 50 percent Effective teachers, 3 points from having 10 percent Minimally Effective teachers, and 0 points from having 10 percent Ineffective teachers. Doing this for all three years produces three scores on a zero-to-100 scale.

MDE then computes a weighted sum of these three-year scores. Factors outside EPIs' control may account for differing amounts of teachers' performance over time, so an unweighted average would not apply here. As teachers in their first year may face a steep learning curve, performance in this year receives a slightly lower weight of 0.3. Teachers in their third year of experience may have learned significantly from their experience rather than from their EPI, so performance in this year receives a still lower weight of 0.2. Performance in the second year of experience receives

component score calculation

the remaining 0.5. In cases where an EPI has no teachers in a particular year of experience, these weights were scaled proportionately to add up to one. Information on each of these possible scenarios is contained in Table 3. Weighting each year's score by the corresponding value and adding the three years together will therefore produce a single score.

Scores may thus be interpreted fairly intuitively. An EPI that produces only Highly Effective teachers (regardless of how many years of experience those teachers have) will have a score of 100. An EPI with all effective teachers will have a score of 80. An EPI that produces only Minimally Effective teachers will have a score of 30. An EPI that produces only Ineffective teachers will have a score of zero.

Table 1: FTE AND YEARS OF EXPERIENCE

Full-Time Equivalency	Completed Years of Experience
0-0.19	0
0.20-1.19	1
1.20-2.19	2
2.20+	3+

Table 2: POINT VALUES BY EFFECTIVENESS LABEL

Effectiveness Label	Point Value
Highly Effective	1.00
Effective	0.80
Minimally Effective	0.30
Ineffective	0.00

Table 3: Missing Year Scenarios

Scenario	Year 1 Data	Year 2 Data	Year 3 Data	Year 1 Weight	Year 2 Weight	Year 3 Weight
1	Yes	Yes	Yes	0.3000	0.5000	0.2000
2	Yes	Yes	No	0.3750	0.6250	–
3	Yes	No	Yes	0.6000	–	0.4000
4	No	Yes	Yes	–	0.7143	0.2857
5	Yes	No	No	1.0000	–	–
6	No	Yes	No	–	1.0000	–
7	No	No	Yes	–	–	1.0000

Note: Scenarios 4, 6, and 7 were not observed in our data, but are presented here for completeness's sake.

overall score calculation summary

To review thus far, the 2014 EPI Performance Score has three component sub-scores:

- the MTTC aggregate passing percentages for a three-year period,
- the combined efficacy percentages from teacher candidate and candidate supervisor surveys, and
- the point attributions for teacher effectiveness labels gathered from Michigan public schools during the most recent three-year period within the five years following initial certifications.

Each of these three sub-scores can be expressed as an "index" score out of 100 points possible, such as a single percentage or a total percentage including the three sub-scores.

In October of 2013, when revisions to the existing EPI Performance Score were presented, MDE leadership reviewed three underlying goals of the score. Each goal was assigned a score "weighting" relative to the goal's significance within the overall score itself.

1. Ensure that the EPI has prepared candidates to be effective classroom teachers through exposure to content and pedagogy.
2. Ensure that the EPI has the capacity to prepare teachers effectively and demonstrates continuous improvement related to MDE's priorities.
3. Ensure that program graduates meet standards for effectiveness aligned to MDE policy.

Each of the sub-scores contributes to at least one of the three goals. Accordingly, each sub-score has a percentage weight that shows its relative significance within the overall EPI score. The three component sub-scores are thus multiplied by their relative weights and by the EPI score element to contribute to an overall point total for goals 1, 2, and 3.

Table 5 (next page) shows the contribution of the two sub-scores (MTTC performance and surveys) included in Goal 1. Table 6 shows the same pattern, but for Goal 2. Finally, Table 7 shows the contribution of one sub-score (three-year teacher effectiveness percentage) to Goal 3. In each of the three "Goal" columns, an organizing, sequential code is shown; the "Weight" column is the relative weight of the sub-score to the goal itself (thus, within a goal the relative weights add up to 100 percent); the "Type" is the measurement tool upon which the data is based; and the description is a category marker that appears in the instrumentation itself, or a note that further explains the "Type."

By multiplying the component "index" or percentage scores by each relative weight, a total point score for each goal is reached; this total point score is then multiplied by the overall goal weight. These three numbers are totaled, and a final overall EPI Performance Score is derived.

When reporting educator effectiveness data for calculation as a component score, some EPIs were found to have too few teachers (across the two educator effectiveness data collection points) to serve as an accurate representation of the quality of their training. Goal 3 is measured exclusively by the point values attributed to educator effectiveness labels.

Thus, in order to compute overall goal weight, a variable goal-weighting program was developed for four "bins" of EPIs, with each "bin" corresponding to the percentage of teachers who had completed a program and been assigned effectiveness labels over the three-year period (this data was captured from the MOECS system and annual Title II reports made to USED). The proposed weightings are shown on Table 4.

overall score calculation summary

Table 4: VARYING PERCENTAGE WEIGHTS FOR OVERALL SCORE CALCULATION

Percentage of program completers who had effectiveness labels	Goal 1	Goal 2	Goal 3
1% – 10%	70	30	0
11% – 20%	63	27	10
21% – 30%	56	24	20
31%+	50	20	30

Thus, as the percentage n-sizes of program completers who had educator effectiveness labels decreases by intervals of 10, Goal 3 is weighted by 10 fewer percentage points, with the remaining points redistributed proportionally between the other two goals, when calculating the overall EPI Performance Score.

Table 5: BREAKDOWN OF CONTRIBUTING COMPONENTS TO GOAL 1

Combined Teacher Candidate and Candidate Supervisor Surveys (efficacy percentages averaged from six of seven categories)

Goal	Weight	Type	Description
1.A.2	5	Likert Response Values	High-Quality Learning Experiences
1.A.3	0	Likert Response Values	Critical Thinking **[not available for 2014 EPI score]**
1.A.4	5	Likert Response Values	Connection to Real-World Problems and Issues
1.B.1	5	Likert Response Values	Use of Educational Technology
1.B.2	5	Likert Response Values	Response to Needs of Students of Special Populations
1.B.3	5	Likert Response Values	Organizing the Learning Environment
1.B.4	5	Likert Response Values	Use of Student Data

Michigan Tests for Teacher Certification

Goal	Weight	Type	Description
1.A.1	70	Aggregate Pass Percentage	Content-Based Test Results over Rolling Three Years

overall score calculation

Table 6: BREAKDOWN OF CONTRIBUTING COMPONENTS TO GOAL 2			
Combined Teacher Candidate and Candidate Supervisor Surveys (efficacy percentages from one of four categories)			
Goal	Weight	Type	Description
2.1	0	Likert Response Values	Candidate Diversity **[not a survey category]**
2.2	100	Likert Response Values	Clinical Preparation
2.3	0	Likert Response Values	State Evaluation System **[not a survey category]**
2.4	0	Likert Response Values	Shortage Areas and Advising **[not a survey category]**

Table 7: BREAKDOWN OF CONTRIBUTING COMPONENTS TO GOAL 3			
Point Score Totals Attributed to Teacher Effectiveness Percentages for EPI Program Graduates, for most recent three-years of full time teaching experience within five years of initial certification			
Goal	Weight	Type	Description
3.1	100	Aggregate Score Totals	Point Score Totals from Last Three Effectiveness Labels Gathered from Five-Year Window
3.2	0	Aggregate Score Totals	Placement Rates **[not collected for 2014 EPI score]**

Note: as mentioned in the "Background and Overview" chapter of this manual, the MDE anticipates the possible contribution of other sources of data for piloting in 2015 or later; the measures marked with an asterisk indicate those under consideration.

OVERVIEW

On May 13 and May 14, 2014, a referent panel was convened for the purposes of determining cut scores on the overall score that would provide three categories of performance among Michigan's EPIs. These categories of performance are proscribed by the federal Higher Education Act and describe the delivery of teacher preparation programs to teacher candidates at each of Michigan's 33 EPIs. These categories are "Low Performing," "At Risk of Low Performing," and "Satisfactory."

In order to recruit panelists to serve as judges during the two-day event, the MDE followed a two-part method, one part aimed at recruiting a number of faculty or administrators from Michigan colleges and universities, and another part aimed at recruiting a representative sample of K–12 educators. This was done in order to ensure that the judges involved in the referent panel process were all stakeholders in the outcome of the findings from the referent panel; the EPI faculty members are employed by institutions that would eventually receive a performance category label, and the K–12 educators are educators who all graduated from the same group of EPIs that would receive a performance category label.

In order to recruit a representative sample of faculty or administration staff from Michigan EPIs, a simple categorization matrix was established to describe EPIs that fit into four resultant categories: Large Public, Small Public, Large Private, and Small Private. The criteria for "Large Public" was established as a Michigan public college or university that has 500 or more teaching program completers over a three-year period; "Small Public" was established as any teaching program with fewer than 500 completers over the same period. "Large Private" was defined as any independent or parochial institution of higher education that had a three-year program completer volume of 100 or greater; "Small Private" was defined as the same type of EPI that had less than 100 program completers per three-year period.

From this categorization matrix, representatives from five EPIs per category were invited to be part of the referent panel, and from among these five per category, one representative was chosen from each of four main geographical areas: the western side of the state, the eastern side of the state, the central part of the state, and the Upper Peninsula as a whole. An overall geographical distribution was also controlled for when the final list was assembled; where possible among public institutions, representatives from the eastern Upper Peninsula and western Upper Peninsula were invited. The resultant group who appeared at the referent panel event represented the following Michigan EPIs:

Large Public
- University of Michigan at Ann Arbor
- Saginaw Valley State University
- Wayne State University
- Michigan State University
- Central Michigan University

Small Public
- Michigan Technological University
- Lake Superior State University
- University of Michigan at Flint

Large Private
- Olivet College
- Baker College
- Calvin College
- Madonna University

Small Private
- Siena Heights University
- Andrews University

may 2014 referent panel

To maintain an even composition of the referent panel, it was determined that the recruitment of the K–12 teachers needed to match or exceed the number of EPI faculty. In order to recruit the required number of teachers, the MOECS system was leveraged as a data source for the names and e-mail addresses of teachers who were to be invited according to a set of invitation business rules as follows:

1. Only teachers who graduated from one of the 33 Michigan EPIs were invited.
2. Only teachers who held a current, valid teaching certificate (Provisional or Professional) were invited.

After a number of records from the MOECS system were gathered from these two criteria, the records were merged against the REP records for the third criterion:

3. Only teachers who were currently employed were invited, as reported on REP.

This generated a record set of approximately 12,000 teachers, complete with names, e-mail addresses, certification information (including certification type and expiration date to verify validity), and subject area of certificate endorsement. From the REP employment data, these 12,000 records were then sorted accordingly into a fourth criterion:

4. Teachers were grouped into three time spans.
   a. Those that graduated from a Michigan EPI between one and five years ago;
   b. Those that graduated from a Michigan EPI between six and ten years ago; and
   c. Those that graduated from a Michigan EPI between eleven and fifteen years ago.

Once the 12,000 teachers were sorted, a random sampling was taken from each of the three sets in order to generate a total of 203 teachers that fit into the three time span sets. Once these teachers were selected by the random sampling method, teachers in each set were sorted into the following sub-sets:

5. Teachers currently teaching at an elementary level (grades K–5) or a secondary (grades 6–12) level.
6. Subject area among certificate holders.

From these 6 criteria, a total of 203 teachers were sent invitation letters, and from those 203, a total of 13 teachers responded. The teachers were kept in an even distribution among the three time span sets and among the grade-level and subject-area sub-sets so that among confirmed participants, few duplications occurred as possible. At the event itself, 9 teachers participated, representing the following grade-levels and subject areas:

1–5 Years Since Graduation
- Elementary, Physical Education
- Secondary, Biology

6–10 Years Since Graduation
- Elementary, Science
- Elementary, Learning Disabilities
- Secondary, Business Education and Spanish

11–15 Years Since Graduation
- Elementary, Reading Specialist
- Secondary, Chemistry and Science
- Secondary, Chemistry, Mathematics, and Physics
- Secondary, English and Physical/Other Health Impairment

PERFORMANCE LEVEL DESCRIPTORS

Draft language for 2014 EPI Performance Score Performance Level Descriptors (PLDs) were reached by a consensus among MDE staff and leadership, following a systematic writing process.

In order to draft the PLDs, MDE staff created a matrix of performance levels that described the specific (but qualitative) extent to which a given EPI must perform on each component instrument. With the understanding that the purpose of convening the referent panel was to assign the numeric overall score ranges to EPI categories after their review of component scores, a qualitative description of performance, but no numerical component score data on each component score, was included in the PLDs. Thus, after the judgments for each EPI profile were reached in the "Body of Work" exercise by the referent panel judges, the MDE could then assign the overall score to each category, calculated from the real component score data, knowing that no judgments were predetermined or influenced by a component numerical score listed in the PLDs.

To begin the systematic writing process, the highest level of performance (Satisfactory) was written as a set of statements that included all of the score components, and which introduced no other factors of performance. After this performance level was reviewed by multiple MDE staff and vetted by OPPS leadership, the lowest level of performance (Low Performing) was drafted, using the same phrasing, format, and language structure. This was done to ensure comparability and clarity for the referent panel judges, as well as ease of reference for eventual public release to future stakeholders. Finally, when the Low Performing level was approved by OPPS leadership, the middle level of performance (At Risk of Low Performing) was written as a mid-point between the two existing PLDs. This was then vetted and approved in a similar fashion as the other two performance levels, completing the continuum.

Some flexibility in interpretation was included by use of the qualifying phrases "most or all of the following" (at the Satisfactory level), "one or more of the following" (at the At Risk of Low Performing level), and "most or all of the following" (at the Low Performing level). This was done because the bulleted statements (broken out by instrumentation) for the Satisfactory level are all written with a positive or "high extent" direction, and the bulleted statements for the other two performance levels are written in a negative or "low extent" direction. For example, by including a qualifying phrase for Satisfactory where "most or all" of the positive statements about EPI performance on the component instrumentation must be true to award this level, it became easier for panelists to envision a range of quality for EPIs at this level, versus a hard-line interpretation of absolute success. Similarly, by including the phrase where "most or all" of the negative statements about EPI performance were needed for placement into the Low Performing level, panelists had better guidance as to the range of possible conditions that an EPI needed to exhibit for it to be placed into the lowest level of performance. Finally, in the case of the middle level of performance, the phrase "one or more" allowed panelists to think of this rung as a "caution" whereby an EPI had some positive, yet some negative, trends that would make it fall between the topmost and the bottommost levels.

The following are the proposed Performance Level Descriptors used during the Referent Group process:

Satisfactory: An EPI whose teacher preparation programs are categorized as satisfactory exhibits most or all of the following:

- a high percentage of teacher candidates who are able to pass their MTTC content-based assessments;

- teacher candidates who report a high level of program efficacy with regard to their teacher preparation, <u>including</u> clinical experiences;
- supervising faculty at EPIs who consistently substantiate the positive program efficacy perceptions of their teacher candidates; and
- graduates who almost exclusively earn "Effective" or "Highly Effective" ratings during their first three years of eligibility to earn those ratings while employed in Michigan public schools within five years since graduation.

At Risk of Low Performing: An EPI whose teacher preparation programs are categorized as at risk of low performing exhibits one or more of the following:

- a relatively low percentage of teacher candidates who are able to pass their MTTC content-based assessments;
- teacher candidates who report relatively lower levels of satisfaction with their teacher preparation and clinical experiences;
- supervising faculty at EPIs who consistently substantiate the negative perceptions of their teacher candidates; and
- graduates who earn few "Ineffective" or "Minimally Effective," and generally no "Highly Effective" ratings, during their first three years of eligibility to earn those ratings while employed in Michigan public schools within five years since graduation.

Low Performing: An EPI whose teacher preparation programs are categorized as low performing exhibits most or all of the following:

- a low percentage of teacher candidates who are able to pass their MTTC content-based assessments;
- teacher candidates report a low level of satisfaction with their teacher preparation and clinical experiences;

- supervising faculty at EPIs who consistently substantiate the negative perceptions of their teacher candidates; and
- graduates who earn many "Ineffective" or "Minimally Effective" ratings, and generally no "Highly Effective" ratings, during their first three years of eligibility to earn those ratings while employed in Michigan public schools within five years since graduation.

PROCESS AND METHODOLOGY

To review, the MDE collected information about teacher preparation institutions within the state in order to evaluate the programs. The EPI Performance Score, which is calculated for each institution, is based on three measures of educator preparation. The EPI Performance Score contains a component for teacher effectiveness once a teacher is working in the schools, a survey of student and instructor experience in the educator preparation institution, and a component for the percent of teachers passing the teacher and content certification assessments.

The EPI Performance Score is a weighted composite of the components and yields a score of 0 to 100. (In 2014, most institutions received a score of 70–95.) This provides a measure for evaluating educator preparation institutions. The purpose of this standard setting was to assign performance levels to the EPI Performance Score.

A standard-setting method adapted from work on assessment instruments was used to identify locations on the scale which indicate stated performance levels. In this case, a contrasting groups methodology was used. Experts examined the components of the EPI Performance Score in the form of an institutional record before weighting had been applied, and judged which performance level should be assigned to that particular institutional record.

This method is most analogous to the "Body of Work" method used in standard-setting studies in K–12 assessments. Experts view the work product of a student

on an assessment and assign that work to a particular level, which is defined by a PLD (see above). In this study the experts looked at an institutional record that gave them information about the institution's student performance on certification tests, the institution's graduate's effectiveness ratings at teaching, and the institution's curricular focus as measured by a survey of students and instructors at the institution.

The institutional record that the experts saw contained three numbers:

1. The percentage of students passing content tests over a three year period;

2. the teacher effectiveness rating which ranges from 0 to 100 and is based on teacher effectiveness ratings for teachers who received their training in the particular institution; and

3. the teacher candidate and candidate supervisor survey index, which is an average of the responses to a survey that focuses on policy goals.

These three numbers did not reflect the weighting that was used to calculate the final EPI Performance Score, but they reflected the information that was used and presented so that the experts could judge each component. The overall score was not presented to assure that each panelist reviewed the entire body of work represented by the data for each institution rather than a single summary score. The institutional record, which contained the three numbers, was not associated with a particular institution during the standard-setting process. In fact, all actual institutional records were used, along with some created records. In all, there were 40 institutional records that the experts categorized (33 actual EPIs and 7 "dummy" EPIs).

The two other relevant aspects of the Body of Work methodology are the descriptions of the standards (PLDs) and the expert panelists. The PLD provides a description of a standard level. In this case there were

three standards: Satisfactory, At Risk of Low Performing, and Low Performing. These were developed to focus on the components of the EPI Performance Score.

The expert panelists used the PLDs to associate each Institutional Record with a standard level. The expert panelists were selected from two groups. One set of panelists came from the educator preparation institutions themselves. The second set of panelists was recruited from practicing teachers who graduated from these institutions. The number of panelists from each group totaled 9 (in the K-12 educator group) and 14 (in the EPI faculty group). The standard-setting process required the two groups of panelists to meet in separate rooms in order to facilitate discussion during the process. These two groups were balanced so both institutional and teacher experts were assigned to both rooms.

The Body of Work method uses a holistic approach to standard setting. Experts were asked to classify an entire set of information about an institution. Once classifications are made, the method provides for a contrasting group approach to providing a standard or cut score. In this case, the distribution of EPI Performance Scores for a standard was compared and a cut score selected that produced the best separation between groups. The selection of the cut score depended on the distributions of scores and how they are smoothed. Some data analysis was required before the final cut score recommendations were made from the information provided by the experts.

The standard setting process consisted of three rounds of ratings by panelists. The total group was divided into two groups for the first two rounds. It is typical during standard setting to introduce new information to the panelists as they move from round to round in the process.

This Body of Work process started in Round 1 with the panelists taking the 40 institutional records in random order and making classifications of each. After the panelists completed this task, their classifications were tabulated and presented in a report that showed all

may 2014 referent panel

panelist ratings and sorted the institutional records by actual EPI Performance Score, though the overall EPI performance score was not presented.

The sorting by EPI Performance Score provided the new information for the panelists to discuss before beginning Round 2 ratings. They were able to evaluate their ratings in terms of the other panelists and in terms of the order of institutional records on the EPI Performance Score. Room facilitators led a discussion of the panelists' classifications in each room.

After the panelists finished their Round 2 ratings, the results were summarized again. This time the panelists were provided with impact date of their preliminary cut score recommendations. Since the institutional records were sorted from high to low on the report of expert ratings, the preliminary cut scores were provided according to the order of the institutional records. This was considered "preliminary" in that experts then had an opportunity to make a Round 3 judgment about classifications. The method used to identify the cut score was based on the selection of a median borderline institutional record.

Panelists were provided with a Round 3 activity where they made their final categorizations based on all the information that had been provided. Panelists met in the large group between Round 2 and Round 3 to discuss the categorizations. Panelists did not receive the actual overall EPI Performance Scale cut score, but its location on the ordered EPI institutional records was noted.

Finally, panelists received an Evaluation Form to complete the activity.

In June 2014, the MDE reviewed the findings and recommendations of the May 2014 referent panel. While the referent panel had been tasked with determining the cut scores between the three categories, MDE leadership determined that, due to changes being concurrently anticipated in the corrective action system, only the cut score between At Risk and Satisfactory was sufficient to make the determinations of performance categories necessary for publication later in 2014 under the requirements of the HEA. This was concluded for two reasons:

- No EPIs were found to have been assigned to the lowest performance category by the referent panel.
- A measure of adequate performance is a first step to determining the performance category, but it is not the only step, under the anticipated changes to the corrective action system.

conclusion

Following the recommendations of the same expert panel, a cut score of 84 was set on the scale for the overall performance score, reflecting the minimum overall score an EPI needed to be considered satisfactory. MDE leadership set this cut score from looking at a consensus of 75% of our panel judges, with the rationales that

- consensus among 75% of our panel judges is enough for the purposes of determining which EPIs did or did not make the cut;
- 90% consensus is rare to find in other scoring mechanisms and seems too high to defend; and
- no EPIs (except for the fake ones that were included in the referent panel exercise) were placed in "Low Performing" by the panel judges, effectively meaning that the referent panel judges established only one discernable cut, not two.

In order to assign the resultant performance category, the cut score of 84 is now used as the first decision in determining how an EPI progresses along the "track" of categories and resultant corrective actions. The progressive corrective action system is explained elsewhere than in this Technical Manual; refer to the MDE OPPS Web site at www.michigan.gov/teachercert for more information.

While the corrective action system is not covered in this Technical Manual, it is important to note that whether or not an EPI has met the cut score for adequate performance each year will now lead to an EPI being assigned a new "phase," or step, in the corrective action system. This "phase" will then, in turn, determine their reported performance category and thus the corrective action requirements expected for the next year. Starting in 2014, EPIs who earn an overall score equal to or higher than the cut score will improve by

one phase increment, lowering their phase number toward zero (improving their performance category status). Conversely, EPIs who fail to meet the cut score will have their phase number raised by one phase increment toward six (worsening their performance category status). A phase number of 0 or 1 results in a reported category of Satisfactory; a phase number of 2 or 3 results in a reported category of At Risk; and a phase number of 4 through 6 results in a reported category of Low Performing. Thus, the corrective action system that is anticipated is a progressive one, with support and guidance from the MDE taking a more "scaffolded" format, as opposed to a "reactive" one.

The final list of EPIs being assigned to each performance category is expected to be published in July 2014 in a memo from the MDE, which will include general information about the component and overall scores, and a brief description of the anticipated changes to the corrective action system. However, unlike previous years, EPIs will now receive specialized reports detailing their component and overall scores, how overall scores were calculated, and what performance category they have been assigned for 2014-2015.

In addition to changes in its corrective action system, the MDE anticipates further modifications to the measurement instruments used in the EPI Performance Score for 2015, including the possibility of a "Year Out" survey of new teachers to gather additional data regarding their preparation program after having gained a year of teaching experience. Therefore, it is likely that the process of convening a referent panel will occur again in 2015. This will aid the MDE in its work of factoring in new measures into the existing EPI Performance Scores, as well as confirm or improve the reliability of its current component scores.

appendix a: 2012-2013 teacher candidate and candidate supervisor surveys

Teacher Candidate Survey

For teacher candidates who are finishing up their directed student teaching for their preparation program and are within the last two weeks of that period.

Q0

Tell us about yourself.

Q1

Your gender:

- ○ Female
- ○ Male

Q2

Your age:

- ○ under 25 years of age
- ○ 25 - 29
- ○ 30 - 34
- ○ 35 - 39
- ○ 40 - 44
- ○ 45 - 49
- ○ 50 or more

Q3

Your race/ethnicity:

- ○ Asian
- ○ Black
- ○ Hispanic
- ○ Multiracial
- ○ Native American\Pacific Islander
- ○ White
- ○ Other, Please Specify

Q4

Check ALL types of college attended in Michigan:

- ❑ Community College
- ❑ Public University
- ❑ Independent College or University
- ❑ Other, Please Specify

Q5

Did you have any college work or teacher preparation at an institution outside of Michigan?

○ Yes
○ No

Q6

What type of teacher preparation program are you completing?

○ Undergraduate Program
○ Post Bachelor Program
○ Master of Arts in Teaching (MATS)

Q7

Select the PRIMARY CONTENT-AREA, OR MAJOR in which you are currently seeking endorsement:

Q8

Select ALL ADDITIONAL CONTENT-AREA MINORS OR MAJORS in which you are currently seeking endorsement(s):

Q9   [Mandatory]

Select your teaching level:

○ Elementary Teacher(PK - 8th grade level only)
○ Secondary Teacher(6th - 12th grade level only)
○ Special Education Teacher
○ K-12 Teacher (Teacher in Art, Health, Physical Education, Music, Library/Media, or World Language)

Q10

If your PRIMARY focus is an ELEMENTARY CERTIFICATE, how much do you agree with the following statements:
I am well prepared to…

	Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a. teach Mathematics.	○ 1	○ 2	○ 3	○ 4
b. teach Social Studies.	○ 1	○ 2	○ 3	○ 4
c. teach Integrated Science.	○ 1	○ 2	○ 3	○ 4
d. teach Language Arts.	○ 1	○ 2	○ 3	○ 4
e. teach Reading (including oral reading).	○ 1	○ 2	○ 3	○ 4
f. teach Writing in a variety of genres.	○ 1	○ 2	○ 3	○ 4
g. teach Reading for comprehension across content areas.	○ 1	○ 2	○ 3	○ 4

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Q11

How much did your Teacher Preparation Institution contribute to your ability to…

		Not Much	2	3	Great Deal
a.	teach Social Studies?	○ 1	○ 2	○ 3	○ 4
b.	teach Integrated Science?	○ 1	○ 2	○ 3	○ 4
c.	teach Writing in a variety of genres?	○ 1	○ 2	○ 3	○ 4

Q12

If your PRIMARY focus is a SECONDARY CERTIFICATE, how much do you agree with the following statements:
I am well prepared to…

		Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a.	teach my major content area(s).	○ 1	○ 2	○ 3	○ 4
b.	teach my minor content area(s).	○ 1	○ 2	○ 3	○ 4
c.	help students with reading comprehension in my content area(s).	○ 1	○ 2	○ 3	○ 4
d.	help students write in my content area(s).	○ 1	○ 2	○ 3	○ 4

Q13

How much did your Teacher Preparation Institution contribute to your ability to…

		Not much	2	3	Great Deal
a.	teach your major content area(s)?	○ 1	○ 2	○ 3	○ 4
b.	help students with in your content area(s)?	○ 1	○ 2	○ 3	○ 4

Q14

If your PRIMARY focus is SPECIAL EDUCATION, how much do you agree with the following statements:
I am well prepared to…

		Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a.	use teaching techniques effective for the identified disability.	○ 1	○ 2	○ 3	○ 4
b.	use instructional strategies that help students with their reading comprehension across content.	○ 1	○ 2	○ 3	○ 4
c.	use instructional strategies that help students to write.	○ 1	○ 2	○ 3	○ 4
d.	collaborate with other teachers to meet student learning needs.	○ 1	○ 2	○ 3	○ 4
e.	use adaptive technologies to accommodate students with special needs.	○ 1	○ 2	○ 3	○ 4

Q15

How much did your Teacher Preparation Institution contribute to your ability to...				
	Not Much	**2**	**3**	**Great Deal**
a. use adaptive technology to accommodate students with special needs?	○ 1	○ 2	○ 3	○ 4
b. collaborate with other teachers to meet student learning needs?	○ 1	○ 2	○ 3	○ 4

Q16

If your PRIMARY focus is K-12 ART, MUSIC, PHYSICAL EDUCATION, LIBRARY/MEDIA, OR WORLD LANGUAGE how much do you agree with the following statements: I am well prepared to...				
	Not at all Agree	**Somewhat Agree**	**Mostly Agree**	**Strongly Agree**
a. teach my content area to elementary students.	○ 1	○ 2	○ 3	○ 4
b. teach my content area to secondary students.	○ 1	○ 2	○ 3	○ 4
c. help students with reading comprehension in my content area(s).	○ 1	○ 2	○ 3	○ 4
d. make connections between my content area and other academic content.	○ 1	○ 2	○ 3	○ 4

Q17

How much did your Teacher Preparation Institution contribute to your ability to ...				
	Not Much	**2**	**3**	**Great Deal**
a. teach your content area to elementary students?	○ 1	○ 2	○ 3	○ 4
b. teach your content area to secondary students?	○ 1	○ 2	○ 3	○ 4

appendix a: 2012-2013 teacher candidate and candidate supervisor surveys

Q18

For the following statements, how much do you agree with each regarding your level of preparation to ORGANIZE STUDENT LEARNING:
I am well prepared to…

	Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a. organize a rich environment for literacy learning.	○ 1	○ 2	○ 3	○ 4
b. use literacy instructional strategies with a variety of texts.	○ 1	○ 2	○ 3	○ 4
c. help students improve their reading skills.	○ 1	○ 2	○ 3	○ 4
d. help students improve their writing skills.	○ 1	○ 2	○ 3	○ 4
e. organize students from different cultures to interact positively with each other.	○ 1	○ 2	○ 3	○ 4
f. plan for students with developmental disabilities.	○ 1	○ 2	○ 3	○ 4
g. challenge gifted and talented students.	○ 1	○ 2	○ 3	○ 4
h. motivate discouraged students for improved academic performance.	○ 1	○ 2	○ 3	○ 4
i. help students become independent learners.	○ 1	○ 2	○ 3	○ 4
j. adapt instruction for students learning English as a second language.	○ 1	○ 2	○ 3	○ 4
k. modify assessments for students with special needs.	○ 1	○ 2	○ 3	○ 4

Q19

How much did your Teacher Preparation Institution contribute to your ability to …

	Not Much	2	3	Great Deal
a. adapt instructions to meet students' varied academic needs?	○ 1	○ 2	○ 3	○ 4
b. support student literacy across content areas?	○ 1	○ 2	○ 3	○ 4

appendix a: 2012-2013 teacher candidate and candidate supervisor surveys

Q20

For the following statements, how much do you agree with each regarding your KNOWLEDGE OF SUBJECT MATTER: (as you answer each question think about your primary content area.)
I am well prepared to…

		Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a.	teach the core concepts of my content area.	○ 1	○ 2	○ 3	○ 4
b.	relate classroom learning in my content area to the real world.	○ 1	○ 2	○ 3	○ 4
c.	integrate my subject matter with other content areas.	○ 1	○ 2	○ 3	○ 4
d.	help students think critically about my content area.	○ 1	○ 2	○ 3	○ 4
e.	use curricular standards to plan instruction.	○ 1	○ 2	○ 3	○ 4

Q21

How much did your Teacher Preparation Institution contribute to your ability to…

		Not Much	2	3	Great Deal
a.	integrate the subject matter with other content areas?	○ 1	○ 2	○ 3	○ 4
b.	help students think critically about the content area?	○ 1	○ 2	○ 3	○ 4

Q22

For the following statements, how much do you agree with each regarding your level of preparation in ASSESSMENT OF LEARNING:
I am well prepared to…

		Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a.	use state and local student learning standards to assess and improve my teaching.	○ 1	○ 2	○ 3	○ 4
b.	use a variety of authentic assessments.	○ 1	○ 2	○ 3	○ 4
c.	use a variety of standardized assessments, to guide my decisions about what to teach.	○ 1	○ 2	○ 3	○ 4
d.	communicate information about students' progress to parents and others.	○ 1	○ 2	○ 3	○ 4
e.	analyze student work in order to modify my own teaching.	○ 1	○ 2	○ 3	○ 4

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Q23

How much did your Teacher Preparation Institution contribute to your ability to...	Not Much	2	3	Great Deal
a. analyze student work in order to modify your own teaching?	○ 1	○ 2	○ 3	○ 4
b. use a variety of standardized assessments to guide your decisions about what to teach?	○ 1	○ 2	○ 3	○ 4

Q24

For the following statements, how much do you agree with each regarding your level of preparation in ORGANIZING THE CLASSROOM ENVIRONMENT:
I am well prepared to...

	Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a. provide alternative explanations or examples when students are confused.	○ 1	○ 2	○ 3	○ 4
b. choose methods that help students to value learning.	○ 1	○ 2	○ 3	○ 4
c. use instructional time effectively to promote student learning.	○ 1	○ 2	○ 3	○ 4
d. use a variety of instructional teaching methodologies.	○ 1	○ 2	○ 3	○ 4
e. structure an inclusive classroom environment that values the learning of all students.	○ 1	○ 2	○ 3	○ 4
f. sustain high expectations for students to maximize student learning.	○ 1	○ 2	○ 3	○ 4
g. implement a classroom management plan that promotes positive interactions.	○ 1	○ 2	○ 3	○ 4
h. uphold the legal responsibilities of teaching.	○ 1	○ 2	○ 3	○ 4
i. establish a learning environment that welcomes collaborative teaching practices.	○ 1	○ 2	○ 3	○ 4
j. differentiate between assessment and evaluation procedures to use each appropriately for student learning.	○ 1	○ 2	○ 3	○ 4

appendix a: 2012-2013 teacher candidate and candidate supervisor surveys

Q25

How much did your Teacher Preparation Institution contribute to your ability to...

	Not Much	2	3	Great Deal
a. use a variety of research-based instructional methods to meet the needs of all students?	○ 1	○ 2	○ 3	○ 4
b. use classroom management techniques that sustain a productive learning community?	○ 1	○ 2	○ 3	○ 4

Q26

For the following statements, how well do you agree with each regarding your level of preparation in WORKING IN THE SCHOOL AND DISTRICT ENVIRONMENT:
I am well prepared to...

	Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a. collaborate with parents, guardians, and students to enhance student development.	○ 1	○ 2	○ 3	○ 4
b. behave ethically in the variety of situations I will face as a teacher.	○ 1	○ 2	○ 3	○ 4
c. adapt my instruction to existing resources.	○ 1	○ 2	○ 3	○ 4
d. use professional development opportunities to improve my teaching.	○ 1	○ 2	○ 3	○ 4
e. collaborate with colleagues and other school personnel.	○ 1	○ 2	○ 3	○ 4
f. seek out district resources that students need.	○ 1	○ 2	○ 3	○ 4
g. take on service roles in the teaching profession (such as curriculum committees and school improvement teams).	○ 1	○ 2	○ 3	○ 4
h. engage in reflection on my professional practice as part of a life-long learning process.	○ 1	○ 2	○ 3	○ 4

Q27

How much did your Teacher Preparation Institution contribute to your ability to...

	Not Much	2	3	Great Deal
a. collaborate with colleagues and other school personnel?	○ 1	○ 2	○ 3	○ 4
b. engage in reflection on your professional practice as part of a life-long learning process?	○ 1	○ 2	○ 3	○ 4

appendix a: 2012-2013 teacher candidate and candidate supervisor surveys

Q28

For the following statements, how much do you agree with each regarding your level of preparation to PARTICIPATE IN THE COMMUNITY BEYOND THE SCHOOL:
I am well prepared to...

		Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a.	participate in the community in which I teach.	○ 1	○ 2	○ 3	○ 4
b.	use home and community resources to teach students.	○ 1	○ 2	○ 3	○ 4
c.	design learning activities for students that involve community groups.	○ 1	○ 2	○ 3	○ 4

Q29

How much did your Teacher Preparation Institution contribute to your ability to...

		Not Much	2	3	Great Deal
a.	design learning activities for students that involve community groups?	○ 1	○ 2	○ 3	○ 4
b.	participate in the community in which you teach?	○ 1	○ 2	○ 3	○ 4

Q30

For the following statements, how well do you agree with each regarding your level of preparation to USE TECHNOLOGY TO MAXIMIZE STUDENT LEARNING:
I am well prepared to...

		Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a.	integrate educational technology into my classroom instruction.	○ 1	○ 2	○ 3	○ 4
b.	practice high ethical standards surrounding the use of technology.	○ 1	○ 2	○ 3	○ 4
c.	use technology for my professional development.	○ 1	○ 2	○ 3	○ 4
d.	develop on-line learning experiences for students in my classroom.	○ 1	○ 2	○ 3	○ 4
e.	evaluate the effectiveness of technology-enhanced learning environments.	○ 1	○ 2	○ 3	○ 4
f.	support students' use of technology to enhance conceptual understanding.	○ 1	○ 2	○ 3	○ 4

Q31

How much did your Teacher Preparation Institution contribute to your ability to…

		Not Much	2	3	Great Deal
a.	integrate educational technology into your classroom instruction?	○ 1	○ 2	○ 3	○ 4
b.	practice high ethical standards surrounding the use of technology?	○ 1	○ 2	○ 3	○ 4

Q32

Regarding your LIBERAL ARTS BACKGROUND, how much do you agree with each of the following statements:
I am well prepared to…

		Not at all Agree	Somewhat Agree	Mostly Agree	Strongly Agree
a.	use knowledge from the liberal arts to enrich my teaching practice.	○ 1	○ 2	○ 3	○ 4
b.	communicate effectively in several forms of writing.	○ 1	○ 2	○ 3	○ 4
c.	use mathematics to enhance my teaching.	○ 1	○ 2	○ 3	○ 4
d.	make interdisciplinary connections with my content area.	○ 1	○ 2	○ 3	○ 4
e.	demonstrate understanding of multiple perspectives and individual differences.	○ 1	○ 2	○ 3	○ 4
f.	demonstrate an understanding of responsible citizenship.	○ 1	○ 2	○ 3	○ 4
g.	articulate my responsibility to prepare students to succeed in a world that is ever-changing.	○ 1	○ 2	○ 3	○ 4
h.	discuss how cultural differences affect U.S. historical policy.	○ 1	○ 2	○ 3	○ 4
i.	discuss Michigan history.	○ 1	○ 2	○ 3	○ 4

Q33

How much did your Teacher Preparation Institution contribute to your ability to…

		Not Much	2	3	Great Deal
a.	demonstrate understanding of multiple perspectives and individual differences?	○ 1	○ 2	○ 3	○ 4
b.	use knowledge from the liberal arts to enrich your teaching practice?	○ 1	○ 2	○ 3	○ 4
c.	adapt the classroom curriculum to meet the needs of a changing society?	○ 1	○ 2	○ 3	○ 4

appendix a: 2012-2013 teacher candidate and candidate supervisor surveys

Q34

Please respond to the following: What does it mean to be an effective teacher?

Q35

How would you rate yourself overall in effectiveness, based on your description of an effective teacher?

- ○ Greatly Effective
- ○ Mostly Effective
- ○ Somewhat Effective
- ○ Not at all Effective

Q36

How much has your recent student teaching experience added to your readiness to be an effective teacher?

- ○ Very Much
- ○ Quite a Bit
- ○ Slightly
- ○ Not at All

Q37

Identify THREE areas of teaching practice in which you feel most confident of your ability:

- ❑ Knowledge of subject matter
- ❑ Assessment of student learning
- ❑ Classroom organization
- ❑ Instructional practices
- ❑ Professional practices
- ❑ Developing community partnerships
- ❑ Participating with colleagues in learning
- ❑ Using technology to teach
- ❑ Working with other adults to support students
- ❑ Other, Please Specify

Q38

Identify THREE areas of teaching practice in which you know you need more experience:

- ❑ Knowledge of subject matter
- ❑ Assessment of student learning
- ❑ Classroom organization
- ❑ Instructional practices
- ❑ Professional practices
- ❑ Developing community partnerships
- ❑ Participating with colleagues in learning
- ❑ Using technology to teach
- ❑ Working with other adults to support students
- ❑ Other, Please Specify

Q39

Do you intend to get your teaching certification within the next 12 months?

- ◯ Yes
- ◯ No

Q40

Additional comments regarding the teacher preparation program:

Q 41 [Mandatory]

To what extent are you aware of the following state and federal policy initiatives?

		Not Aware	Slightly Aware	Moderately Aware	Highly Aware
a.	Highly Qualified Teacher (HQT)	◯ 1	◯ 2	◯ 3	◯ 4
b.	Individualized Education Plans (IEP)	◯ 1	◯ 2	◯ 3	◯ 4
c.	Michigan Educational Assessment Program (MEAP)	◯ 1	◯ 2	◯ 3	◯ 4
d.	Michigan Educator Code of Ethics	◯ 1	◯ 2	◯ 3	◯ 4
e.	Michigan Grade Level Content Expectations (GLCE)	◯ 1	◯ 2	◯ 3	◯ 4
f.	Michigan High School Content Expectations (HSCE)	◯ 1	◯ 2	◯ 3	◯ 4
g.	Michigan Merit Curriculum (MMC) requirements	◯ 1	◯ 2	◯ 3	◯ 4
h.	Michigan Model Anti-Bullying Policy	◯ 1	◯ 2	◯ 3	◯ 4
i.	Michigan Positive Behavior Support Policy	◯ 1	◯ 2	◯ 3	◯ 4
j.	No Child Left Behind (NCLB)	◯ 1	◯ 2	◯ 3	◯ 4
k.	Response to Intervention (RTI)	◯ 1	◯ 2	◯ 3	◯ 4
l.	Universal Design for Learning (UDL)	◯ 1	◯ 2	◯ 3	◯ 4

Q42 [Mandatory]

To what extent have you become aware of each of the following during your preparation as a teacher?

	Not Aware	Slightly Aware	Moderately Aware	Highly Aware
a. Approaches to inclusion	○ 1	○ 2	○ 3	○ 4
b. Criteria for use of seclusion or restraint	○ 1	○ 2	○ 3	○ 4
c. Fingerprinting requirement for school staff	○ 1	○ 2	○ 3	○ 4
d. Instructional support for English language learners	○ 1	○ 2	○ 3	○ 4
e. Mandatory reporting of suspected abuse	○ 1	○ 2	○ 3	○ 4
f. New teacher induction and mentoring requirements	○ 1	○ 2	○ 3	○ 4
g. Professional development requirements	○ 1	○ 2	○ 3	○ 4
h. Reading requirement to obtain a Professional Certificate	○ 1	○ 2	○ 3	○ 4

Q43

Identification Information:

Candidate Supervisor Survey
For EPI faculty who directly supervise the placement and directed student teaching of teacher candidates and have regular contact with them throughout that period.

Q1   [Mandatory]

Student Identification:

Q2   [Mandatory]

Type of program enrolled in at present:

- ○ Graduate
- ○ Undergraduate
- ○ Post Bachelor (not leading to a graduate degree)
- ○ Master of Arts in Teaching (MATS)

Q3   [Mandatory]

Teaching Certificate:

- ○ Elementary (K - 5) + 6-8
- ○ Secondary (6 - 12)

Q4   [Mandatory]

Content Specialty (Major/Minor) Choose all that apply:

- ❑ Art
- ❑ Career Technology
- ❑ Health/Physical Education
- ❑ Language Arts, English or Reading
- ❑ Library/Media
- ❑ Mathematics
- ❑ Music
- ❑ Science (or sub area)
- ❑ Social Studies (or sub area)
- ❑ Special Education
- ❑ World Language
- ❑ Other, Please Specify

Q5

School District: (If Private or Parochial skip to next question.)

Q6

Parochial or Private School:

appendix a: 2012-2013 teacher candidate and candidate supervisor surveys

Q7 [Mandatory]

Consider the following aspects of the student teacher/intern ability regarding SUBJECT MATTER KNOWLEDGE:
Teaches the core concepts of the assigned subject area(s).
Relates classroom learning to the real world.
Integrates subject matter with other content areas.
Helps students think critically (e.g. analyze, solve problems, make decisions).

This student teacher/intern demonstrates thorough knowledge of the subject matter.

Not At All Agree	Somewhat Agree	Mostly Agree	Strongly Agree
○ 1	○ 2	○ 3	○ 4

Q8 [Mandatory]

Consider the following aspects of the student teacher/intern ability to SUPPORT STUDENT LITERACY:
Organizes an environment for developing literacy in content area learning.
Uses literacy instructional strategies with a variety of texts.
Uses a variety of strategies to help students improve their reading skills.
Uses a variety of strategies to help students improve their writing skills.

This student teacher/intern demonstrates thorough knowledge of student literacy.

Not At All Agree	Somewhat Agree	Mostly Agree	Strongly Agree
○ 1	○ 2	○ 3	○ 4

Q9 [Mandatory]

Consider the following aspects of the student teacher/intern abilities in ORGANIZING THE CLASSROOM ENVIRONMENT:
Chooses a variety of teaching strategies to meet the different needs of students.
Ensures a safe and orderly classroom environment.
Develops curriculum that builds on students' experiences, interests and abilities.
Helps students become self-motivated and self-directed.
Chooses methods that help students to value learning.
Facilitates rich discussions of content.

This student teacher/intern is able to organize the classroom environment.

Not At All Agree	Somewhat Agree	Mostly Agree	Strongly Agree
○ 1	○ 2	○ 3	○ 4

Q10 [Mandatory]

Consider the following aspects of the ability to MAXIMIZE LEARNING OPPORTUNITIES FOR THE RANGE OF STUDENTS TRUSTED TO THE STUDENT TEACHER/INTERN:
Structures opportunities for all students to interact positively across cultures.
Plans for students with disabilities or developmental delays.
Challenges gifted and talented students.
Motivates discouraged students for improved academic performance.
Adapts instruction for students learning English as a second language.

Given the opportunity, this student teacher/intern is able to maximize learning opportunities for diverse students.

Not At All Agree	Somewhat Agree	Mostly Agree	Strongly Agree
○ 1	○ 2	○ 3	○ 4

Q11   [Mandatory]

Consider the following aspects of the student teacher/intern ability to ASSESS LEARNING:
Uses authentic assessment (eg. portfolios, performance tasks, anecdotal records) in the classroom.
Uses the results of a variety of assessments to guide instructional decisions.
Communicates information about students' progress to students, parents and others.
Adapts assessments for students with special needs.
Analyzes student work in order to modify teaching strategies.

This student teacher/intern is able to assess learning .

Not At All Agree	Somewhat Agree	Mostly Agree	Strongly Agree
○ 1	○ 2	○ 3	○ 4

Q12   [Mandatory]

Consider the following aspects of the student teacher/intern ability in USING TECHNOLOGY TO MAXIMIZE STUDENT LEARNING POTENTIAL:
Integrates educational technology into classroom instruction.
Practices high ethical standards surrounding the use of technology.
Uses technological resources to bring new learning opportunities into the classroom.
Uses technology to organize and manage student records.
Supports the use of a variety of technology in student work.

Given the opportunity, this student teacher/intern is able to use technology to maximize students' learning potential.

Not At All Agree	Somewhat Agree	Mostly Agree	Strongly Agree
○ 1	○ 2	○ 3	○ 4

Q13   [Mandatory]

Consider the following aspects of the student teacher/intern ability regarding LIBERAL ARTS BACKGROUND.
Uses knowledge from the liberal arts (eg. humanities, mathematics and science) to enrich teaching practices.
Communicates effectively in several forms of writing.
Uses mathematics as a tool in learning.
Models the role of an individual in a free society.
Demonstrates understanding of multiple perspectives and individual differences.
Demonstrates an understanding of responsible citizenship.

This student teacher/intern is able to incorporate liberal arts into teaching practices.

Not At All Agree	Somewhat Agree	Mostly Agree	Strongly Agree
○ 1	○ 2	○ 3	○ 4

appendix a: 2012-2013 teacher candidate and candidate supervisor surveys

Q14 [Mandatory]

Consider the following aspects of the student teacher/intern abilities in WORKING IN THE SCHOOL AND DISTRICT ENVIRONMENT:
Uses state and local student learning standards to plan instruction.
Communicates with parents, guardians and families.
Behaves ethically in the variety of situations faced as a teacher.
Teaches effectively in schools with limited resources.
Collaborates with colleagues on professional issues.
Access school and district resources that students need.

This student teacher/intern is able to work in the school and district environment.

Not At All Agree	Somewhat Agree	Mostly Agree	Strongly Agree
○ 1	○ 2	○ 3	○ 4

Q15 [Mandatory]

Consider the following aspects of the student teacher/intern ability in PARTICIPATING IN EXTENDED LEARNING COMMUNITIES.
Arranges for students to connect with the community.
Participates in professional growth opportunities.
Uses school and district resources to enrich instruction.

This student teacher/intern is able to participate in extended learning communities.

Not At All Agree	Somewhat Agree	Mostly Agree	Strongly Agree
○ 1	○ 2	○ 3	○ 4

Q16

Please comment on observed Student Teacher/Intern strengths:

Q17

Please comment on observed Student Teacher/Intern weaknesses:

appendix a: 2012-2013 teacher candidate and candidate supervisor surveys

Table 8: SURVEY QUESTION CORRESPONDENCES TO CATEGORY AREAS CONTRIBUTING TO EPI SCORE						
	High-Quality Learning Experiences	Real-World Problems and Local/Global Issues	Use of Educational Technology	Needs of Special Populations	Organize Learning Environments	Effective use of Assessments and Student Data
Teacher Candidate Survey	Q10 (a) through (g) Q12 (a) through (g) Q20 (a), (c), and (e) Q24 (a)	Q20 (b)	Q30 (a) through (f)	Q18 (e) through (k)	Q18 (a) through (d) Q24 (b) through (g) and (i)	Q22 (a) through (e) Q24 (j)
Candidate Supervisor Survey			Q12	Q10	Q8	Q11

Efficacy rates from both teacher candidates and candidate supervisors from the survey questions listed above contributed to directly Goal 1 (shown as "Part I" on the2014 Component and Overall Score Reports).

An average of the efficacy rates across all of the questions listed above was used to contribute directly to Goal 2 (shown as "Part II" on the2014 Component and Overall Score Reports).

Questions that appeared on the surveys but were omitted from contributing to the score were those questions that were deemed not to align with the Michigan Interstate Teacher Assessment and Support Consortium (MI-InTASC) standards, as adopted by the MDE in April 2013.

appendix b: referent group panel agenda

EDUCATOR PREPARATION INSTITUTION (EPI) PERFORMANCE SCORE REFERENT GROUP PANEL

Tuesday, May 13

8:30–9:00   Panelists Sign In and Panelists Numbers Assigned

Panelists sign in. A roster should be available before the meeting and a panelist number will be assigned. Each panelist will receive a number upon sign-in. This will be used on our reporting materials in order to allow the panelists to keep their ratings confidential if they wish.

9:00–10:00   Introductions and Description of the Standard-Setting Process

The facilitator will introduce himself and department staff. He will ask panelists to introduce themselves: name, school, and position.

The facilitator will lead a general discussion of the purpose of the meeting—setting standards for the EPI Performance Score. The discussion will cover why standards are needed and how the standards will be used.

The facilitator will present a summary of the standard process in general and specifically how the standard setting is conducted by reviewing the agenda.

The "Body of Work" method and its adaptation to this task will be discussed in general.

10:00–11:00   Description and Explanation of the EPI Data Vectors

Michigan staff will review in detail the data vectors that will be presented to the panelists during the body of work process. They will need to understand each of the variables in the data vector (Aggregate Pass Rates, All Likert Response Variables including the scale that was used, and Teacher Effective Ratings). This understanding will be critical for the panelists to make classifications of the data vectors.

11:00–11:15   Break

11:15–12:00   Description of the Goals and EPI Performance Score Calculation

Michigan staff will explain how the EPI Performance Score is calculated from the data vectors that have been discussed. Even though panelists will not need to calculate an EPI Performance Score, they should have a clear understanding of how they move from the data vectors they are working with to the final score.

12:00–1:00   Lunch

1:00–1:45   Discussion of Performance Level Descriptors

The facilitator will review the Performance Level Descriptors and show how these, and the data vectors, are the key components in the standard-setting process. Some discussion of the PLDs will be allowed, but the primary focus will be on how they arise from an analysis of the goals.

1:45–2:15   Round 1 Task Description, Questions, Survey of Process Understanding, and Practice

The facilitator will describe the process for Round 1. Panelists will be given the data vectors, materials that describe each vector, and a Ratings Sheet that they will use to record their Round 1 ratings. The facilitator will lead a discussion of an example data vector and how it should be rated using the PLDs.

The facilitator will answer or find the answer to final questions. Panelists will be asked to affirm that they understand the process with a show of hands.

appendix b: referent group panel agenda

2:15–4:15   Round 1 Ratings—Breakout Rooms

Panelists go to their breakout rooms to complete the Round 1 task. Panelists will be provided with a Rating Sheet to provide their classifications for the 40 institutional records. Panelists should work alone on this portion of the task. Breakout room facilitators will answer any questions from panelists. The speed of panelists will vary quite a bit, so as panelists complete their task, rating sheets will be collected and recorded into the software.

Wednesday, May 14

8:30–9:00 Panelist Sign In

9:00–10:00   Discussion of Round 1 Results—Breakout Rooms

Panelists' ratings will be compiled and ratings summaries that contain all panelist ratings will be shared with the breakout group. The report will be organized as a matrix with institutional cards as rows and panelist ratings as columns. The rows will be sorted by the institutional card EPI score with the highest-rated EPI institutional card at the top of the matrix and the lowest at the bottom. Panelists will be able to see inconsistencies in individual panelist ratings and biases in particular panelists.

Discussion led by the facilitators in their respective rooms will focus on the matrix and cells that appear out of place. There will no pressure to change panelists' ratings in the discussion, but the Round 2 rating exercise will provide the opportunity for panelists to refine their ratings given the group matrix presentation.

10:00–10:30   Round 2 Ratings—Breakout Rooms

Panelists will be asked to provide a Round 2 set of ratings, which may reflect any changes they want to make as a result of the Round 1 discussions. Again, panelists will not be pressured to make changes.

10:30–10:45   Break

10:45–11:30   Discussion of Round 2 Results—Large Group Room

Panelists will gather in the large group room for a presentation of their Round 2 results. The panelists will be given a new matrix based on Round 2 results. Panelists will also be given the positions on the matrix that indicate the preliminary cut scores.

The facilitator will lead a discussion of the results, focusing on group differences and vectors above and below assumed standards.

Please note that the standards themselves, and where the cut exactly falls on the EPI Performance Scale, are not completely clear to the panelists in this process. The matrix will provide a general idea, but an exact cut score recommendation from this panel will need to be based on further analysis of the data.

11:30–12:00   Round 3 Ratings and Completion of Standard Setting Feedback Form

Based on the large group discussion of Round 2 results, panelists will have the opportunity to make any final changes to their ratings in Round 3. Round 3 results will provide the final panelist input.

Panelists will complete an evaluation or feedback form before the Referent Panel meeting ends.

appendix c: referent group panel results

REFERENT GROUP PANEL RESULTS

The Referent Group Panel completed the last round of ratings for the Body of Work method at noon on Friday, May 14. The process yielded 3 rounds of Institutional Card categorizations for 40 institutions for each of the 23 panelists.

The results of the Round 3 categorizations were used to identify cut scores for the Satisfactory/At Risk standard and the At Risk/Low Performing standard. The Round 3 results yielded a distribution of EPI Performance Scores for each standard category. These distributions were examined to determine the Referent Group Panel's recommended cut scores. A summary of each round is provided below.

Round 1

Panelists were provided with the 40 Institutional Cards in a random order. Each card contained the three data points about the institution:

> MTTC—the percent of students passing the content assessments for that institution
> SURV—the accumulated result of the survey questions to students and instructors
> EFF—the effectiveness rating for teachers who graduated from the institution

Each data point could range from 0 to 100, but most are within the 70 to 95 range. Panelists were also provided with an institutional size indicator.

Institutional Cards EPI1 and EPI 2 appear below. Panelists were given institutional cards EPI1 through EPI40 to categorize. A list of the data points for EPI1–EPI40 follow the EPI1 and EPI2 card examples. The forty cards are based on 33 actual institutions and their data for 2014, while seven cards were created to round out the distribution and to make it more difficult for panelists to identify particular institutional cards with specific institutions.

EPI #1

SIZE: Small

COMPONENT SCORES

MTTC	SURV	EFF
80.20	95.75	77.24

EPI #2

SIZE: Large

COMPONENT SCORES

MTTC	SURV	EFF
88.80	93.08	77.86
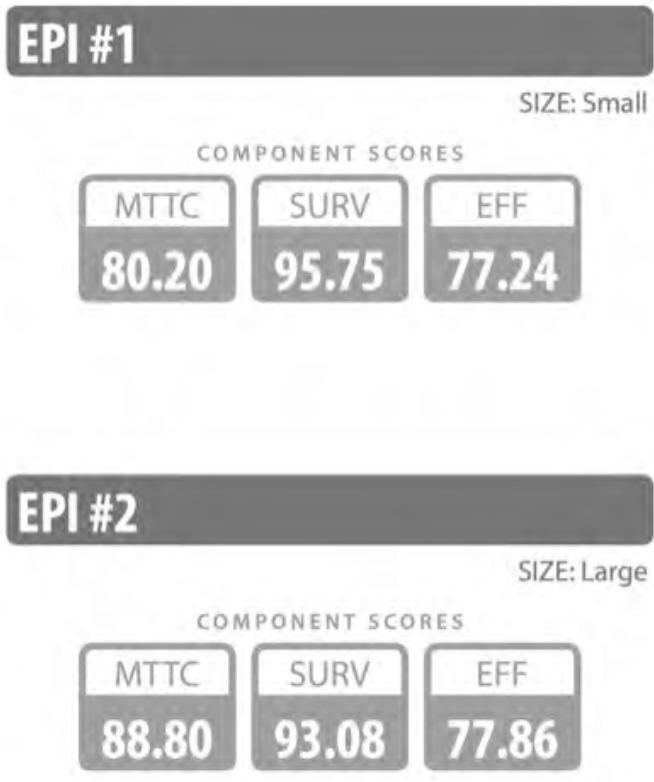
Panelist Rating Form

Panelist Rating Form

JUDGE NUMBER		ROUND 1	ROUND 2	ROUND 3				ROUND 1	ROUND 2	ROUND 3
EPI 1						EPI 21				
EPI 2						EPI 22				
EPI 3						EPI 23				
EPI 4						EPI 24				
EPI 5						EPI 25				
EPI 6						EPI 26				
EPI 7						EPI 27				
EPI 8						EPI 28				
EPI 9						EPI 29				
EPI 10						EPI 30				
EPI 11						EPI 31				
EPI 12						EPI 32				
EPI 13						EPI 33				
EPI 14						EPI 34				
EPI 15						EPI 35				
EPI 16						EPI 36				
EPI 17						EPI 37				
EPI 18						EPI 38				
EPI 19						EPI 39				
EPI 20						EPI 40				

Institution Card Information

Institution Card	Size	MTTC	SURV	EFF
EPI1	Small	80.20	95.75	77.24
EPI2	Large	88.80	93.08	77.86
EPI3	Small	85.80	94.08	83.43
EPI4	Small	96.10	97.25	92.25
EPI5	Small	74.60	94.58	79.42
EPI6	Small	80.40	90.67	80.43
EPI7	Medium	92.90	94.75	77.07
EPI8	Medium	57.80	71.75	64.45
EPI9	Small	85.50	92.83	79.81
EPI10	Small	90.90	94.42	82.17
EPI11	Medium	85.00	92.75	81.88
EPI12	Small	84.70	94.83	87.33
EPI13	Medium	86.50	93.92	79.20
EPI14	Small	70.80	92.50	79.66
EPI15	Small	81.10	92.67	85.42
EPI16	Medium	80.90	94.17	76.23
EPI17	Small	82.30	92.00	71.00
EPI18	Small	92.40	94.83	78.85
EPI19	Medium	89.60	97.25	76.37
EPI20	Small	83.10	98.33	75.42
EPI21	Small	91.00	93.92	80.00
EPI22	Medium	72.00	84.17	75.12
EPI23	Small	89.60	91.83	80.97
EPI24	Medium	90.40	95.75	88.10
EPI25	Small	95.80	90.83	90.00
EPI26	Medium	92.10	92.75	79.52
EPI27	Medium	85.10	95.25	81.19
EPI28	Small	94.50	93.58	82.36
EPI29	Large	89.10	91.50	80.19
EPI30	Medium	84.20	93.42	81.12
EPI31	Medium	95.50	91.92	77.31
EPI32	Small	76.50	92.83	81.52
EPI33	Large	84.40	92.08	86.54
EPI34	Medium	94.80	94.83	79.19
EPI35	Small	65.50	81.92	66.57
EPI36	Large	92.10	96.08	87.73
EPI37	Medium	68.80	81.00	72.05
EPI38	Medium	84.50	95.33	77.25
EPI39	Medium	83.00	92.00	83.77
EPI40	Large	92.30	92.67	80.52

Panelists rated each of the 40 Institutional Cards as characteristic of a Satisfactory, At Risk, or Low Performing institution based on the Performance Level Descriptors for those levels. The cards were presented to the panelists in an EPI1 to EPI40 order that was a random sorting of the institutional cards. Each card also had a corresponding EPI Performance Scale score, which is a weighted composite of the data components on the card. The EPI Performance Scale score for each card was used to sort the institutional card information and the variable used in the contrasting groups analysis to determine the cut scores.

Round 1 Results are presented by discussion group. Panelists gathered in two rooms to complete their Round 1 categorizations: Group C and Group P. Twelve panelists were in Group C and eleven were in Group P. The results presented below are for each group. The first table shows the rating for EPI1 through EPI40 for each panelist. Panelists are the columns and EPI Institutional Cards are the rows. Each group's results are presented in two charts. The first chart is in EPI1 through EPI40 order, which is how the panelists were given the cards. The second chart for each group is sorted by the EPI Performance Scale score. In this chart the EPIs are ordered from the highest EPI Performance Scale score to the lowest.

Panelists entered a "1" if they categorize the institutional card as Satisfactory, a "2" if At Risk, or a "3" if Low Performing. The #1, #2, and #3 columns at the end of the Panelist row indicate how many panelists categorized that particular EPI card as "1" for Satisfactory, "2" for At Risk, or "3" for Low Performing.

Round 1 - Group C

	C1	C3	C6	C7	C9	C10	C12	C14	C16	C18	C21	C23		#1	#2	#3
EPI1	3	2	1	2	1	2	1	2	1	1	1	1		7	4	1
EPI2	2	2	1	2	2	1	1	2	1	1	1	1		7	5	0
EPI3	2	2	1	1	1	1	1	1	1	1	1	1		10	2	0
EPI4	1	1	1	1	1	1	1	1	1	1	1	1		12	0	0
EPI5	3	2	2	2	1	3	2	2	2	1	2	1		3	7	2
EPI6	3	2	1	1	1	2	1	1	1	1	1	1		9	2	1
EPI7	1	1	1	2	2	1	1	2	1	1	1	1		9	3	0
EPI8	3	3	3	3	3	3	3	3	3	3	3	3		0	0	12
EPI9	2	2	1	2	1	1	1	1	1	1	1	1		9	3	0
EPI10	1	2	1	1	1	1	1	1	1	1	1	1		11	1	0
EPI11	2	2	1	1	1	1	1	1	1	1	1	1		10	2	0
EPI12	1	2	1	1	1	2	1	1	1	1	1	1		10	2	0
EPI13	2	2	1	2	2	1	1	1	1	1	1	1		8	4	0
EPI14	3	2	1	2	2	3	2	2	2	1	2	2		2	8	2
EPI15	2	2	1	1	1	2	1	1	1	1	1	1		9	3	0
EPI16	2	2	1	2	2	2	1	2	1	1	1	1		6	6	0
EPI17	3	2	1	2	2	2	1	2	2	1	2	2		3	8	1
EPI18	1	2	1	2	1	1	1	2	1	1	1	1		9	3	0
EPI19	2	2	1	2	2	1	1	2	1	1	1	1		7	5	0
EPI20	2	3	1	2	2	2	1	2	1	1	1	1		6	5	1
EPI21	1	2	1	1	1	1	1	1	1	1	1	1		11	1	0
EPI22	3	3	2	3	2	3	2	2	2	2	3	2		0	7	5
EPI23	2	2	1	1	1	1	1	1	1	1	1	1		10	2	0
EPI24	1	1	1	1	1	1	1	1	1	1	1	1		12	0	0
EPI25	1	1	1	1	1	1	1	1	1	1	1	1		12	0	0
EPI26	1	2	1	1	2	1	1	1	1	1	1	1		10	2	0
EPI27	2	2	1	1	1	1	1	1	1	1	1	1		10	2	0
EPI28	1	2	1	1	1	1	1	1	1	1	1	1		11	1	0
EPI29	2	2	1	1	2	1	1	1	1	1	1	1		9	3	0
EPI30	2	2	1	1	1	2	1	1	1	1	1	1		9	3	0
EPI31	1	2	1	2	2	1	1	2	1	1	1	1		8	4	0
EPI32	3	2	1	2	1	3	1	2	1	1	1	1		7	3	2
EPI33	2	1	1	1	1	2	1	1	1	1	1	1		10	2	0
EPI34	1	2	1	1	2	1	1	1	1	1	1	1		10	2	0
EPI35	3	3	2	3	3	3	3	3	3	2	3	3		0	2	10
EPI36	1	1	1	1	1	1	1	1	1	1	1	1		12	0	0
EPI37	3	3	2	3	3	3	2	3	2	2	3	3		0	4	8
EPI38	2	2	1	2	2	2	1	2	1	1	1	1		6	6	0
EPI39	2	2	1	1	1	2	1	1	1	1	1	1		9	3	0
EPI40	1	2	1	1	2	1	1	1	1	1	1	1		10	2	0

Round 1 Sorted - GRP C

	C1	C3	C6	C7	C9	C10	C12	C14	C16	C18	C21	C23		#1	#2	#3
EPI4	1	2	1	1	1	1	1	1	1	1	1	1		11	1	0
EPI36	1	1	1	1	1	1	1	1	1	1	1	1		12	0	0
EPI25	1	1	1	1	1	1	1	1	1	1	1	1		12	0	0
EPI24	1	1	1	1	1	1	1	1	1	1	1	1		12	0	0
EPI28	1	2	1	1	1	1	1	1	1	1	1	1		11	1	0
EPI34	1	2	1	1	2	1	1	1	1	1	1	1		10	2	0
EPI10	1	2	1	1	1	1	1	1	1	1	1	1		11	1	0
EPI18	1	2	1	2	1	1	1	2	1	1	1	1		9	3	0
EPI12	1	2	1	1	1	2	1	1	1	1	1	1		10	2	0
EPI40	1	2	1	1	2	1	1	1	1	1	1	1		10	2	0
EPI21	1	2	1	1	1	1	1	1	1	1	1	1		11	1	0
EPI7	1	1	1	2	2	1	1	2	1	1	1	1		9	3	0
EPI31	1	2	1	2	2	1	1	2	1	1	1	1		8	4	0
EPI26	1	2	1	1	2	1	1	1	1	1	1	1		10	2	0
EPI19	2	2	1	2	2	1	1	2	1	1	1	1		7	5	0
EPI33	2	1	1	1	1	2	1	1	1	1	1	1		10	2	0
EPI3	2	2	1	1	1	1	1	1	1	1	1	1		10	2	0
EPI23	2	2	1	1	1	1	1	1	1	1	1	1		10	2	0
EPI27	2	2	1	1	1	1	1	1	1	1	1	1		10	2	0
EPI29	2	2	1	1	2	1	1	1	1	1	1	1		9	3	0
EPI2	2	2	1	2	2	1	1	2	1	1	1	1		7	5	0
EPI13	2	2	1	2	2	1	1	1	1	1	1	1		8	4	0
EPI11	2	2	1	1	1	1	1	1	1	1	1	1		10	2	0
EPI15	2	2	1	1	1	2	1	1	1	1	1	1		9	3	0
EPI30	2	2	1	1	1	2	1	1	1	1	1	1		9	3	0
EPI39	2	2	1	1	1	2	1	1	1	1	1	1		9	3	0
EPI9	2	2	1	2	1	1	1	1	1	1	1	1		9	3	0
EPI20	2	3	1	2	2	2	1	2	1	1	1	1		6	5	1
EPI38	2	2	1	2	2	2	1	2	1	1	1	1		6	6	0
EPI1	3	2	1	2	1	2	1	2	1	1	1	1		7	4	1
EPI16	2	2	1	2	2	2	1	2	1	1	1	1		6	6	0
EPI6	3	2	1	1	1	2	1	1	1	1	1	1		9	2	1
EPI32	3	2	1	2	1	3	1	2	1	1	1	1		7	3	2
EPI5	3	2	2	2	1	2	2	2	2	1	2	1		3	8	1
EPI17	3	2	1	2	2	2	1	2	2	1	2	2		3	8	1
EPI14	3	2	1	2	2	3	2	2	2	1	2	2		2	8	2
EPI22	3	3	2	3	2	3	2	2	2	2	3	2		0	7	5
EPI37	3	3	2	3	3	3	2	3	2	2	3	3		0	4	8
EPI35	3	3	2	3	3	3	3	3	3	2	3	3		0	2	10
EPI8	3	3	3	3	3	3	3	3	3	3	3	3		0	0	12

Round 1 - Group P

	P2	P4	P5	P8	P11	P13	P15	P17	P19	P20	P22		#1	#2	#3
EPI1	1	2	1	1	2	1	1	1	1	1	1		9	2	0
EPI2	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI3	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI4	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI5	2	2	1	1	2	2	2	2	1	2	2		3	8	0
EPI6	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI7	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI8	3	3	3	2	3	3	3	3	3	3	3		0	1	10
EPI9	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI10	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI11	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI12	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI13	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI14	2	2	1	1	3	2	2	2	1	1	2		4	6	1
EPI15	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI16	2	2	1	1	2	2	1	1	1	1	1		7	4	0
EPI17	2	2	1	1	2	2	1	2	1	1	1		6	5	0
EPI18	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI19	1	2	1	1	1	2	1	1	1	1	1		9	2	0
EPI20	2	2	1	1	1	2	1	1	1	1	1		8	3	0
EPI21	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI22	2	2	2	1	3	3	2	2	2	2	2		1	8	2
EPI23	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI24	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI25	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI26	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI27	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI28	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI29	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI30	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI31	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI32	2	2	1	1	2	2	1	2	1	1	2		5	6	0
EPI33	2	2	1	1	1	1	1	1	1	1	1		9	2	0
EPI34	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI35	3	3	2	2	3	3	3	3	2	3	3		0	3	8
EPI36	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI37	2	3	2	2	3	3	3	2	2	3	2		0	6	5
EPI38	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI39	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI40	1	1	1	1	1	1	1	1	1	1	1		11	0	0

appendix c: referent group panel results

Round 1 Sorted - GRP P

	P2	P4	P5	P8	P11	P13	P15	P17	P19	P20	P22		#1	#2	#3
EPI4	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI36	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI25	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI24	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI28	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI34	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI10	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI18	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI12	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI40	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI21	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI7	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI31	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI26	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI19	1	2	1	1	1	2	1	1	1	1	1		9	2	0
EPI33	2	2	1	1	1	1	1	1	1	1	1		9	2	0
EPI3	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI23	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI27	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI29	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI2	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI13	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI11	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI15	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI30	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI39	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI9	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI20	2	2	1	1	1	2	1	1	1	1	1		8	3	0
EPI38	2	1	1	1	1	1	1	1	1	1	1		10	1	0
EPI1	1	2	1	1	2	1	1	1	1	1	1		9	2	0
EPI16	2	2	1	1	2	2	1	1	1	1	1		7	4	0
EPI6	1	1	1	1	1	1	1	1	1	1	1		11	0	0
EPI32	2	2	1	1	2	2	1	2	1	1	2		5	6	0
EPI5	2	2	1	1	2	2	2	2	1	2	2		3	8	0
EPI17	2	2	1	1	2	2	1	2	1	1	1		6	5	0
EPI14	2	2	1	1	3	2	2	2	1	1	2		4	6	1
EPI22	2	2	2	1	3	3	2	2	2	2	2		1	8	2
EPI37	2	3	2	2	3	3	3	2	2	3	2		0	6	5
EPI35	3	3	2	2	3	3	3	3	2	3	3		0	3	8
EPI8	3	3	3	2	3	3	3	3	3	3	3		0	1	10

Panelists categorized the majority of cards as Satisfactory, while the fewest were categorized as Low Performing. Round 1 results indicate that the panelists also categorized the cards along the lines of the EPI Performance Scale Score. In the sorted charts for both Group C and Group P, the number of Satisfactory Ratings increases as the EPI Performance Scale score increases.

Panelists were provided with the sorted chart information in each of their respective breakout rooms. They discussed at length their categorizations and rationale for making them. They also discussed at length the impact of the classifications on the institutions.

Round 2

Following the discussions, panelists were asked to make their Round 2 categorizations. They were told they did not need to make changes, but based on the new information provided by the EPI Performance Scale sorted presentation and group discussion, they could make changes in their categorizations.

All 23 panelists gathered together to discuss the Round 2 results as shown on next page. In this case, the Round 2 results were presented with all 23 panelists in the EPI Performance Score sorted as appears on next page.

Round 2 Combined Groups Sorted

	C1	C3	C6	C7	C9	C10	C12	C14	C16	C18	C21	C23	P2	P4	P5	P8	P11	P13	P15	P17	P19	P20	P22		#1	#2	#3
EPI4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI34	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		22	1	0
EPI10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI18	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		21	2	0
EPI12	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		22	1	0
EPI40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI7	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		22	1	0
EPI31	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		21	2	0
EPI26	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		21	2	0
EPI19	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		21	2	0
EPI33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		23	0	0
EPI29	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		22	1	0
EPI2	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		21	2	0
EPI13	1	2	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		20	3	0
EPI11	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		22	1	0
EPI15	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		22	1	0
EPI30	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		21	2	0
EPI39	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		21	2	0
EPI9	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		21	2	0
EPI20	2	2	1	1	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		18	5	0
EPI38	1	2	1	1	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		19	4	0
EPI1	2	2	1	1	1	2	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1		18	5	0
EPI16	2	2	1	1	2	2	1	2	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1		16	7	0
EPI6	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		20	3	0
EPI32	2	2	1	2	1	2	1	2	1	1	1	1	2	2	1	1	2	2	1	2	2	1	1		12	11	0
EPI5	2	2	1	2	1	2	2	2	1	1	1	2	2	2	1	1	2	2	2	2	2	1	2		8	15	0
EPI17	2	2	1	2	2	2	1	2	1	1	1	2	1	2	1	1	2	2	1	2	1	1	1		12	11	0
EPI14	2	2	1	2	2	2	2	2	2	1	1	2	2	2	2	2	3	2	2	2	2	1	2		4	18	1
EPI22	3	3	2	3	2	3	2	2	2	2	2	3	2	2	2	2	3	3	2	2	2	2	2		0	16	7
EPI37	3	3	2	3	3	3	3	3	2	2	3	3	2	3	2	2	3	3	3	2	2	2	2		0	10	13
EPI35	3	3	2	3	3	3	3	3	3	2	3	3	3	3	2	3	3	3	3	3	2	3	3		0	4	19
EPI8	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		0	0	23

appendix c: referent group panel results

The Round 2 results show some differences from the Round 1 results. The panelists are even more likely to rate cards EPI1 to EPI40 as Satisfactory. Panelists also made their ratings more in line with the EPI Performance Scale score. At the end of Round 2, only 6 of the institutional cards were classified as At Risk or Low Performing.

Panelists were presented the chart above and participated in a whole group discussion of the Round 2 Results. Panelists were also told where the standards might fall on the sorted EPI scale. After Round 2 results, the Satisfactory/At Risk standard was between EPI5 and EPI17, while the At Risk/Low Performing standard was between EPI22 and EPI37.

Panelists discussed the Round 2 categorizations and the possible standards in the large group. They were then asked to return to their breakout rooms to complete the Round 3 ratings and the Evaluation Form. Again panelists did not need to make any changes from Round 2 to Round 3, but were allowed to make changes if they wished. Only about one third of panelists made changes from Round 2 to Round 3.

The Round 3 results appear on the next page. Any changes that were made by panelists again were in the direction of categorizing more institutions as Satisfactory.

Round 3 Sorted Combined Groups

	C1	C3	C6	C7	C9	C10	C12	C14	C16	C18	C21	C23	P2	P4	P5	P8	P11	P13	P15	P17	P19	P20	P22	#1	#2	#3
EPI4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI31	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI29	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI39	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI20	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	21	2	0
EPI38	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0
EPI1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	21	2	0
EPI16	2	1	1	1	2	1	1	2	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	18	5	0
EPI6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22	1	0
EPI32	2	1	1	1	1	1	1	2	1	1	1	1	2	2	1	1	2	2	1	2	1	1	1	16	7	0
EPI5	2	2	1	2	1	1	2	1	1	1	1	2	2	2	1	1	2	2	1	2	1	1	2	12	11	0
EPI17	2	2	1	2	2	1	1	2	1	1	1	2	1	2	1	1	2	2	1	1	1	1	1	14	9	0
EPI14	3	2	1	1	2	2	2	2	2	1	1	2	2	2	2	2	3	2	2	2	2	1	2	5	16	2
EPI22	3	2	2	3	2	3	2	1	2	1	2	3	2	2	2	2	3	3	2	2	2	2	2	2	15	6
EPI37	3	3	2	3	3	3	3	3	2	2	3	3	2	3	2	2	3	3	3	3	2	2	2	0	9	14
EPI35	3	3	2	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	3	3	0	3	20
EPI8	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	23

appendix c: referent group panel results

Round 3

At the conclusion of Round 3, panelists had made a total of 40 times 23, or 920 categorizations. In Round 3, Satisfactory categorizations numbered 775 or 84.2%, while panelists categorized 80 of the 920 as At Risk or 8.7%, and 65 or 7.1% as Low Performing. Panelists felt that most institutions fell in the Satisfactory performance level—this is not unexpected as it is the case with the present rating system.

The distribution does present some challenges for producing cut scores in the Contrasting Group Design because so few instances of At Risk or Low Performing institutional cards exist.

The chart below adds two pieces of information that panelists did not see during the Referent Panel process. In the far right column, the mean of the panelist classifications for each EPI card is provided. Also on the far left, the actual EPI Performance Score for each card is provided. This is the scale that these cards were sorted by and it ranges from the highest to the lowest value. The EPI Performance Scale is the metric on which cut scores will be determined.

From the chart below, the dividing line between Satisfactory and At Risk is clearly between EPI17 with an EPI Performance Scale of 82.10 and EPI14 with an EPI Performance Scale of 80.77. The line between At Risk and Low Performing is defined by EPI22 at 77.21 and EPI37 at 74.54. From this chart, the whole number EPI Performance Score standard for Satisfactory is 80–81 and the EPI Performance Score standard for At Risk is 75. The standards are those recommended through the Body of Work/Contrasting Group process.

Round 3 Sorted Combined Groups
with
EPI Performance Score

EPI PS		C1	C3	C6	C7	C9	C10	C12	C14	C16	C18	C21	C23	P2	P4	P5	P8	P11	P13	P15	P17	P19	P20	P22	#1	#2	#3	Mean
95.37	EPI4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
92.33	EPI36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
92.00	EPI25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
91.43	EPI24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
90.19	EPI28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
90.01	EPI34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
89.26	EPI10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
89.18	EPI18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
88.85	EPI12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
88.80	EPI40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
88.65	EPI21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
88.61	EPI7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
88.54	EPI31	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
88.40	EPI26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
88.26	EPI19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
88.02	EPI33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
87.82	EPI3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
87.57	EPI23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
87.39	EPI27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
87.20	EPI29	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
86.85	EPI2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
86.76	EPI13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
86.72	EPI11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
86.56	EPI15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
86.43	EPI30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
86.31	EPI39	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
86.28	EPI9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
86.08	EPI20	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	21	2	0	1.09
85.97	EPI38	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	0	0	1.00
84.77	EPI1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	21	2	0	1.09
84.22	EPI16	2	1	1	1	2	1	1	2	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	18	5	0	1.22
83.77	EPI6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22	1	0	1.04
83.54	EPI32	2	1	1	1	1	1	1	2	1	1	1	1	2	2	1	1	2	2	1	2	1	1	1	16	7	0	1.30
82.80	EPI5	2	2	1	2	1	1	2	1	1	1	1	2	2	2	1	1	2	2	1	2	1	1	2	12	11	0	1.48
82.10	EPI17	2	2	1	2	2	1	1	2	1	1	1	2	1	2	1	1	2	2	1	1	1	1	1	14	9	0	1.39
80.77	EPI14	3	2	1	1	2	2	2	2	2	1	1	2	2	2	2	2	3	2	2	2	2	1	2	5	16	2	1.87
77.21	EPI22	3	2	2	3	2	3	2	1	2	1	2	3	2	2	2	2	3	3	2	2	2	2	2	2	15	6	2.17
74.54	EPI37	3	3	2	3	3	3	3	3	2	2	3	3	2	3	2	2	3	3	3	3	2	2	2	0	9	14	2.61
71.84	EPI35	3	3	2	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	3	3	0	3	20	2.87
64.80	EPI8	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	23	3.00

appendix d: evaluation form feedback

EVALUATION FORM FEEDBACK

Panelists were asked to complete an Evaluation Form at the end of the Standard Setting Workshop. The Evaluation Form focused on the sections of the standard-setting process and their importance to the panelists. A copy of the Evaluation Survey and the number of panelists who responded to each option appears below. There were 23 panelists and all completed the standard-setting process. Some panelists left some items blank, but most panelists completed all Evaluation Form items.

Panelists also provided answers to the open-ended questions. A summary of those responses follows the responses to the selection items.

EPI Referent Group
Evaluation Form

On this evaluation form, we ask that you share your feedback about the referent group process and outcomes. Your feedback will help us evaluate the training, methods, and materials we used. Please do not put your name on the form as we want your feedback to be anonymous.

Instructions: Please place an "X" in the response option that best reflects your opinions related to the statements below.

	1: Please indicate the level of success of various components of the referent group process.				
	Component	Not Successful	Partially Successful	Successful	Very Successful
a.	Introduction to the EPI Data		1	13	9
b.	Performance Level Review		2	16	5
c.	Process Training		2	14	7
d.	Practice Exercise		3	14	6
e.	Group Discussions			8	15
f.	Data Presentations		2	12	9

appendix d: evaluation form feedback

2: Please indicate the importance of the following factors in your recommended EPI performance levels.

	Factor	Not Important	Somewhat Important	Important	Very Important
a.	Performance Level Descriptors		3	10	10
b.	Your perceptions of the difficulty of the metrics	2	2	11	8
c.	Your perceptions of the quality of EPI data		4	7	12
d.	Your own experience	1	3	9	10
e.	Your initial classification of EPI performance	2	4	11	6
f.	Panel discussions		1	6	16
g.	Feedback data		2	12	8
h.	Summaries of Score Calculations		5	8	10
i.	Policy environment		2	10	7

3: How confident are you in the classification of EPIs at each level of proficiency?

Performance Level	Not Confident	Somewhat Confident	Confident	Very Confident
Satisfactory		2	9	11
At Risk of Low Performing		7	12	3
Low Performing		5	7	9

4: What strategy did you use to assign EPIs to performance levels?

5: Please use the space below to make any additional comments you wish to make about the process or your experience. Thank you for taking the time to evaluate the session.

Adapted from Hambleton, R., (2001). Setting performance standards on educational assessments and criteria for evaluating the process. In Cizek, G. (Ed.) Setting performance standards: Concepts, methods and perspectives. Mahwah, New Jersey: Lawrence Earlbaum Associates.

appendix d: evaluation form feedback

The first question on the Evaluation Form asked about the success of six components of the Referent Group process. All components were thought to be successful by approximately 90% of the panelists. Panelists found the Group Discussions most useful.

The second question asked panelists to rank the importance of factors used in the standard-setting process. Most panelists found all the factors listed to be Important or Very Important. Approximately 75% or more selected the Important or Very Important category for the factors provided. The highest-rated factor in importance was the Panel Discussions. This result confirms the response to Question 1 that the discussions were considered the most useful component. The least important factor in recommending the EPI Performance standards was Policy Environment.

The panelists were asked to rate how confident they were in the classifications according to performance level. The results for Question 3 show that panelists were overall Confident or Very Confident in their classifications. For the Satisfactory level classification 90% of panelists were Confident or Very Confident. The At Risk level confidence rating was a little lower, with 68% stating they were Confident and Very Confident.

The lowest category of Low Performing evidenced similar confidence ratings as the At Risk level in panelist classification. One panelist indicated that he or she was Not Confident in his or her classification, while overall 73% indicated they were Confident or Very Confident in their classification.

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